

CLAIMS

1. (Deleted)

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6. (Amended) A refrigerator having a refrigerating cycle sequentially connecting a compressor, a condenser, a drawing mechanism, an evaporator, and an accumulator, an inlet temperature sensor and an outlet temperature sensor for detecting temperatures of an inlet and an outlet of said evaporator and a cooling fan for cooling said compressor,

characterized in that said cooling fan is controlled by following steps:

a step for judging whether or not said compressor is driven;

a step for judging whether or not an air temperature is low when it is judged by the previous

step that said compressor is driven;

a step for judging whether or not a temperature difference between a temperature detected by said inlet temperature sensor and a temperature detected by said outlet temperature sensor is equal to a first predetermined value or more when it is judged by the previous step that said air temperature is not low;

a step for forcibly stopping said cooling fan when it is judged by the previous step that said temperature difference between said temperatures detected by said temperature sensors is equal to said first predetermined value or more;

a step for judging after the previous step whether or not said temperature difference between said temperatures detected by said temperature sensors is equal to a second predetermined value or less which is lower than said first predetermined value; and

a step for canceling a forcible state of said cooling fan when it is judged by the previous step that said temperature difference between said temperatures detected by said temperature sensors is equal to said second predetermined value or less.

7. (Deleted)

8. (Deleted)

9. (Deleted)

TRANSLATION OF THE WORDS IN THE DRAWINGS

[FIG. 1]

(A) TURN ON POWER

S1 START COMPRESSOR 20

S2 STOP C FAN 19

S3 ROTATE COMPRESSOR 20 AT HIGH SPEED

S4 HAS 10 MINUTES ELAPSED AFTER POWER ON?

S5 NORMALLY CONTROL COMPRESSOR 20

S6 HAS 4 HOURS ELAPSED AFTER POWER ON?

S7 NORMALLY CONTROL C FAN 19

[FIG. 2]

[FIG. 3]

(A) R FLOW

(B) F FLOW

[FIG. 4]

(A) R FLOW

(B) F FLOW

[FIG. 5]

(A) START

S15 DRIVE C FAN 19

S13 STOP C FAN 19

S11 IS COMPRESSOR 20 DRIVEN?

S12 IS AIR TEMPERATURE 10°C OR HIGHER?

S14 IS DIFFERENCE BETWEEN OUTLET TEMPERATURE AND
INLET TEMPERATURE 6K OR MORE?

S18 CANCEL FORCIBLE STOP OF C FAN 19

S16 FORCIBLY STOP C FAN 19

S17 IS DIFFERENCE BETWEEN OUTLET TEMPERATURE AND
INLET TEMPERATURE 3K OR LESS?

[FIG. 6]

(A) START

S28 DRIVE C FAN 19

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S29 STOP C FAN 19
S21 IS SET TEMPERATURE 20°C?
S23 IS DIFFERENCE BETWEEN OUTLET TEMPERATURE AND
INLET TEMPERATURE 3K OR LESS?
S22 IS DIFFERENCE BETWEEN OUTLET TEMPERATURE AND
INLET TEMPERATURE 6K OR MORE?
S24 SET THE SET TEMPERATURE TO 20°C.
S25 SET THE SET TEMPERATURE TO 10°C.
S26 IS COMPRESSOR 20 DRIVEN?
S27 IS AIR TEMPERATURE HIGHER THAN SET TEMPERATURE?

[FIG. 7]

[FIG. 8]

[FIG. 9]

[FIG. 10]

(A) R FLOW
(B) TEMPERATURE (°C)
(C) TIME (H)
(D) F FLOW
(E) R FLOW
(F) F FLOW
(G) R FLOW
(H) F FLOW
(I) R FLOW
(J) F FLOW
(K) AIR TEMPERATURE SENSOR 53
(L) R SENSOR 50
(M) R EVAPORATOR SENSOR 54
(N) F SENSOR 51
(O) OUTLET TEMPERATURE SENSOR 56
(P) INLET TEMPERATURE SENSOR 55
(Q) C FAN 19
(R) COMPRESSOR 20
(S) SLEEPING PHENOMENON